

Notice of Allowability

Application No.

10/734,387

Examiner

Cindy D. Khuu

Applicant(s)

HANCOCK ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-90.
3. ☒ The drawings filed on 12 December 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 7/6/04 and 6/18/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given by Mr. James Katz during a telephone interview on June 22, 2005.

This Examiner's Amendment was made to correct for minor informalities and to keep the abstract within the range of 50-150 words.

The application has been amended as follows:

The abstract has exceeded the 150 words in length. Replace the abstract with:

-- A power management integrated circuit for monitoring a parameter of a power system includes: an analog front end operative to receive and at least one of amplify, attenuate and filter analog signals representative of at least one of voltage and current in a power system to produce modified analog signals; an analog to digital converter operative to produce digital signals; the logic coupled with the analog to digital converter operative to receive the digital signals and produce a power parameter and the logic includes a processor core; a random access memory coupled with the logic operative to store the power parameter and the logic is operative to implement a setpoint to detect when the power parameter is outside a determined range; and a digital output coupled with the first logic and the digital output is useable to control a switching circuit outside the power management integrated circuit.--

In claim 89: Replace "epresentative" (Line 4) with -- representative --.

Allowable Subject Matter

Claims 1-90 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, taken alone or in combination, fails to disclose or render obvious:

With respect to claim 1, wherein said first logic is operative to implement at least one setpoint to detect when said at least one power parameter is outside a determined range.

With respect to claim 34, analog to digital converter, operative to receive said digital signals, operative to interface to a source of time and associate a timestamp with said digital signals to produce timestamped digital signals

With respect to claims 57 and 89, a control circuit formed as part of said power management integrated circuit coupled with said first logic and operative to control a power supply which supplies operating power to said power management integrated circuit.

Alexander et al (**6,292,717**) teach a power management integrated circuit comprising an analog front end formed as part of said power management integrated circuit operative to receive and at least one of amplify, and filter analog signals (**Column 10: Lines 30-31**) representative of at least one of voltage (**Column 10: Line 1**) and current (**Column 9: Line 63**) in a power system to produce modified analog signals.

However, Alexander does not teach at least a first logic operative to implement at least one setpoint to detect when said at least one power parameter is outside a determined range; and at least one digital output formed as part of said power management integrated circuit coupled with said first logic, and an analog to digital converter, operative to receive said digital signals, operative to interface to a source of time and associate a timestamp with said digital signals to produce timestamped digital signals.

McGrath et al. (**5,461,634**) teach a power management integrated circuit comprising an interface (**Figure 1: ID 595**) formed as part of said power management integrated circuit operative to receive signals

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representative of at least one of voltage and current in a power system (**Figure 5**) and produce modified signals indicative of said signals (**Figure 1: ID 596**).

However, McGrath does not teach at least a control circuit formed as part of said power management integrated circuit coupled with said first logic and operative to control a power supply which supplies operating power to said power management integrated circuit.

Claims 2-33, 35-56, 58-88 and 90 are allowed due to their dependency on claims 1, 34, 57 and 89.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy D. Khuu whose telephone number is (571) 272-8585. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. D. Khuu

6/24/05

Michael Nghiem
MICHAEL NGHIEM
PRIMARY EXAMINER